



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/070,290	02/28/2002	Toshio Kazama	AB-1215 US	3057

7590 09/25/2003

DAVID W. HEID
MACPHERSON KWOK CHEN & HEID LLP
2001 GATEWAY PLACE
SUITE 195E
SAN JOSE, CA 95110

EXAMINER

TSUKERMAN, LARISA Z

ART UNIT PAPER NUMBER

2833

DATE MAILED: 09/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/070,290

Applicant(s)

KAZAMA, TOSHIO

Examiner

Larisa Z Tsukerman

Art Unit

2833

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1 – 2 and 5 are rejected under 35 U.S.C. 102(a) as being anticipated by DiRenzo (3599326).

In regard to claim 1, DiRenzo discloses a conductive contact member 12 for establishing an electric contact by being applied to an object to be contacted that includes solid solder, comprising a layer of highly electrically conductive material resistant to solder deposition (see Fig. 6 and Col. 1, lines 71-72 and Col. 3, lines 1-9, 22-24) and essentially consisting of gold added with silver, the layer being formed at least over a conductive contact part of the conductive contact member so that the conductive contact part of the conductive contact member (Col. 3, lines 22-25) may not be contaminated by deposition of solder from the object to be contacted.

In regard to claim 2, the layer formed by plating (Col.3, lines 22-24)

In regard to claim 5, DiRenzo discloses the conductive contact member is selected from the group consisting of a needle member having a pointed end (see Fig. 6).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2833

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over DiRenzo (3599326).

In regard to claim 4, DiRenzo discloses most of the claimed invention except for that silver is added to gold by 0.01 to 8%.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to add silver to gold in such range, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

In regard to claim 6, DiRenzo discloses most of the claimed invention except for that the conductive member made of steel.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the conductive member made of steel, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of design choice. *In re Leshin*, 125 USPQ 416 (CCPA 1960).

Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akram et al. (6426642). Akram et al. discloses a conductive contact member 62 for establishing an electric contact by being applied to an object to be contacted that

Art Unit: 2833

includes solid solder, comprising a plated layer of highly electrically conductive material resistant to solder deposition 64 (see Fig. 22-24) and the layer being formed at least over a conductive contact part of the conductive contact member so that the conductive contact part of the conductive contact member may not be contaminated by deposition of solder from the object to be contacted formed at least over a conductive **contact part** of the contact member. However, Akram et al. does not disclose that the layer is essentially consisting of gold added with silver.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include the solder resistant layer is essentially consisting of gold added with silver, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of design choice. *In re Leshin*, 125 USPQ 416 (CCPA 1960).

Claims 1-2, 4, 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haseyama et al. (6535002) in view of DiRenzo (3599326).

Haseyama et al. discloses a conductive contact member 30 for establishing an electric contact by being applied to an object to be contacted that includes solid solder 28, comprising a plated layer of highly electrically conductive material 62 (gold) (see Fig. 20C and Col.15, lines 21-23) and the layer being formed at least over a conductive contact part of the conductive contact member. However, Haseyama et al. does not disclose that **the layer:**

Art Unit: 2833

1) is resistant to solder deposition so that the conductive contact part of the conductive contact member may not be contaminated by deposition of solder from the object to be contacted formed at least over a conductive **contact part** of the contact member and
2) is essentially consisting of gold added with silver.

DiRenzo teaches a layer consisting of gold added with silver (see Col.3, lines 22-25) to resist solder deposition. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made and for same reason to add silver over gold in structure of Haseyama et al.

In regard to claim 4, Haseyama et al. modified by DiRenzo discloses most of the claimed invention except for that silver is added to gold by 0.01 to 8%.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to add silver to gold in such range, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

In regard to claim 5, Haseyama et al. modified by DiRenzo discloses the conductive contact member 30 is selected from the group consisting of rod member having a flat end (see Fig. 20C).

In regard to claim 6, Haseyama et al. modified by DiRenzo discloses most of the claimed invention except for that the conductive member made of steel.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the conductive member made of steel, since it has been

Art Unit: 2833

held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of design choice. *In re Leshin*, 125 USPQ 416 (CCPA 1960).

Claims 1 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Loranger et al. (5791914) in view of Roth (4511076) and Means (3230297).

In regard to claim 1, Loranger discloses a conductive contact member 11 for establishing an electrical contact by being applied to an object to be contacted. However, Loranger does not disclose a layer of highly electrically conductive material resistant to solder deposition formed at least over a conductive **contact part** of the contact member.

Roth teaches a solder resistant/repellant substance applied to portions where it desired the **solder not adhere** (Col. 3, line 26-30) and Means teaches a coating 17 on the spring loop 14, 16 of conductive wire. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made and for same reason to cover a contact part 29 of Loranger with a layer of conductive material resistant to solder deposition as taught by Roth and Means.

In regard to claim 7, Loranger, modified by Roth and Means, discloses the contact member is in a form of a **compression coil spring** (see Fig.5), and the solder resistant layer is formed around a coil wire (as taught by Means) forming the coil spring.

In regard to claim 8, Loranger, modified by Roth and Means, discloses

Art Unit: 2833

the contact member is in a form of a compression coil spring having a **contact part 29** in a form of **of closely wound turns** of a coil wire (see Fig.5) and the solder resistant layer is formed over an outer surface of the **closely wound turns**.

Response to Arguments

Applicant's arguments filed 6-23-03 have been fully considered but they are not persuasive.

In regard to arguments on page 6 concerning the rejection of claims 1-3 based on DiRenzo reference and that DiRenzo discloses an arrangement for preventing adherence of a molten solder and with regard to claims 1 and 8: the statement that "a conductive contact member for establishing an electric contact by being applied to an object to be contacted that includes solid solder", it has been held that a recitation with respect to the manner or method in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. See *Ex parte Wikdahl*, 10 USPQ2d 1546, 1548 (Bd. Pat. App. & Inter. 1989); *Ex parte Masham*, 2 USPQ2d 1647, 1648 (Bd. Pat. App. & Inter. 1987); *In re Casey*, 370 F.2d 576, 152 USPQ 235, 238 (CCPA 1967); see also M.P.E.P. § 2111.02. A process or environment of use limitation in an apparatus claim will not patentably distinguish the claim from the prior art unless it somehow imposes a structural limitation.

"Intended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art."

M.P.E.P. § 2111.02 (citing *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963)).

A claim preamble has the import that the claim as a whole suggests for it. Where the claim preamble is used to recite structural limitations of the claimed invention, the PTO and courts give effect to that usage; therefore, the “solid solder” as a part of the claim preamble does not have a patentable weight.

Conversely, where a structurally complete invention in the claim body is defined and uses the preamble only to state a purpose or intended use for the invention, the preamble is not a claim limitation. The determination of whether preamble recitations are structural limitations or mere statements of purpose or use can be resolved only on review of the entire patent in order to gain an understanding of the inventions and the claims. *Rowe v. Dror*, 42 USPQ2d 1550 (Fed. Cir. 1997).

Also, the Examiner considers a low portion of the pin 12 as a **contact portion** to contact wires 23 (Fig. 6), and this **contact portion** is resistant to solder (Col. 3. lines 1-9 and 22-25).

In regard to the argument, that DiRenzo does not disclose using a material consisting of gold added with silver, the Examiner disagrees. DiRenzo discloses a solder resistant layer comprising of gold and silver. It appears that applicant is implying the claim language requires a homogeneous mixture. However, no such claim language supports the claim limitation of homogeneous mixture. If applicant wishes patent protection for a homogeneous mixture of silver and gold, applicant must amend the claims in a manner consistent with that limitation.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Larisa Z Tsukerman whose telephone number is (703)-308-6038. The examiner can normally be reached on Monday through Friday from 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A Bradley can be reached on 703-308-2319. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-0956.

L.T.
September 11, 2003


THO D. TA
PRIMARY EXAMINER